Petro Marine Services

Kensington Fuel Depot Handbook
Juneau

April, 2014

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INTRODUCTION AND PHILOSOPHY

Introduction

This is the Petro Marine Services Kensington Fuel Depot Handbook. It establishes policies and procedures for use in managing and operating the facility. It is a living document, subject to constant refinement and change as we continuously improve our practices, procedures, standards and services. Your recommendations are essential to improving our business practices. You should never hesitate to submit these for discussion and implementation into this handbook.

Philosophy

Safety is Job #1. It is your job to ensure you operate in the safest manner possible, complying with and adhering to all company and site specific safety policies and procedures. Do not be a bystander. Be proactive and participate in the safety program. As with safety, it is everyone's responsibility and function to point out and correct errors or potential issues in policies and/or procedures. In the case of fuel delivery, it is everyone's job to ensure it is done correctly. If we do not operate in this manner, it is to the detriment of the company, the employees, the environment and the owners. We need to check and double check everything we do in delivering and/or receiving fuel. These things are no one's job in particular and everyone's job specifically. No matter what your title, it is your job to ensure the safe delivery of the fuel to our customer.

Lastly, if I don't know, I can't fix it. Let me know if you need help on something or require assistance. I will do my best to promptly respond and meet your needs.

We have the pleasure and privilege of working for a true Alaskan company that is unique in the state. We should take pride in this fact and exhibit that pride in everything we do. We have a high standard of conduct expected from our associates in the company. You must know and recognize many of our customers see ***you*** as Petro Marine employees on or off the job. You should continually strive to be good employees, good citizens and good people at all times.

James B. Beckham
Director of Operations

GEOGRAPHIC LOCATION

The Kensington Fuel Depot is located in Berner's Bay, 40 miles north of Juneau, Alaska, at 58°46' 49.2''N, 135° 00' 39.3''W.

FACILITY INFORMATION

The facility consists of the main tank area, approximately 500ft of 3in piping from the tanks to the barge header location, two portable 20ft shipping containers, a concrete pad and a fuel truck.

All bulk storage tanks are constructed and maintained to applicable industry standards. There are seven (7) 50,000 gallon, self-contained, double walled storage tanks in the upper lay down area near the barge ramp facility, for a total on-site capacity of 350,000 gallons. ULSD2 is the only product stored in bulk at this site. The storage tanks have integral secondary containment, high level and interstitial monitoring and alarm systems, over fill protection valves and mechanical clock gauges. The tanks sit on a structural gravel pad, leveled and compacted for this purpose.

The pipeline that services the bulk storage tanks runs from the header underground for approximately 200ft, then above ground and up the hill to the tanks, a distance of approximately 300ft. The underground section is A106 seamless domestic schedule 80 steel piping with anodeflex ribbon cathodic protection. These lines are pressure tested annually to 1.5 times the maximum allowable working pressure. 100 pounds is the general working pressure during barge transfers.

The tank truck loading area is a concrete pad and two portable shipping containers. One shipping container holds a generator system, lighting system, two pumps and two filters and two meters to fill the tank truck for transport to the upper mine site. The other container is set up for storage of critical supplies, fuel testing equipment, spill response items and other miscellaneous gear. It also contains several portable fire extinguishers, eye wash station and a first aid kit.

Adjacent to the barge ramp is a single 3in cargo header that service the bulk storage tanks from the fuel barges.

Material Safety Data Sheets for all the products on site are located in the shipping container.

HOURS OF OPERATION

Normal Operating hours of this facility are seven days a week year round, 7:00am to 7:00pm or as necessary to fuel the critical equipment. Barge receipts will normally be scheduled during daylight hours but may vary according to need and barge requirements.

EMERGENCY CONTACT NUMBERS

Plant Manager: Jim Cawdrey	Office:	907 586 4400
	Cell:	907 321 5037
	Home:	907 523 9330
Plant Foreman: Ron Etheridge	Office:	907 586 4400
	Cell:	907 321 5086
	Home:	907 523
Petro Marine Services, Operations	Office:	907 224 6222
	Cellular:	907 362 3141
	Home:	907 224 3140
Petro Marine Services, 24hr		907 562 5000
USCG Marine Safety Detachment Duty Officer (Ketchikan)		907 225 4496
USCG Marine Safety Office Duty Officer (Juneau)		907 463 2240
USCG Command Center, Alaska		800 478 5555
USCG National Response Center, Duty Officer		800 424 8802
Federal Bureau of Investigation, Joint Terrorism Task Force		907 463 3461
	After Hours	907 276 4441
State of Alaska Department of Environmental Conservation (KET)		907 225 6200
State of Alaska Department of Environmental Conservation (JUN)		907 465 5340
State of Alaska Department of Environmental Conservation 24hr		800 478 9300
Alaska State Troopers		907
U. S. Environmental Protection Agency, Region X, Seattle WA		206 553 1263
SeaPro		907 225 7002
	After Hours	907 228 5637
Fire Marshall		907 465 4331

SPILL RESPONSE AND CONTAINMENT EQUIPMENT

A full listing of equipment is available in the facility's Spill Prevention Control and Countermeasures Plan and the Federal Response Plan located in the shipping container. The U. S. Coast Guard Facility Operations Manual for Fuel Transfers is located in the shipping container as well.

EMERGENCY SHUTDOWN AND EVACUATION PLAN

Refer to the facility's U. S. Coast Guard Facility Operations Manual for Fuel Transfers and available at the shipping container or at the marine cargo headers during transfers. Additional information is available in the facility's Spill Prevention Control and Countermeasures Plan and the Federal Response Plan Spill Contingency Plan located in the shipping container.

PLANT SECURITY

The pumps and generators are locked and de-energized when not in use. All valves in the tank farm are closed and locked when not in use. The shipping container is closed and locked when not in use.

This facility is exempt from the requirements of 33 CFR 105, Maritime Transportation Security Act. It has a site-specific security plan addressing security requirements of the facility.

FUEL DEPOT GENERAL PROCEDURES

These procedures are given as a minimum general template for daily and normal operations at the Depot.

Daily Opening Procedures

TANK FARM / LOADING AREA

- Conduct daily inspection of the tank farm, loading facility, piping, valves, appurtenances, surrounding areas using inspection forms. See Daily Inspection Form.
- Record clock gauge readings. Compare to previous closing.
- Record meter readings. Compare to previous closing.
- Unlock and open valves on service tanks for the day.
- Unlock and open, as necessary, water draws to remove water from tanks.
- Drain the water out of the tanks into the collection container. Record on the Daily Inspection Form.
- Discard water into collection drum. Clean collection container. Close and lock the water draws.
- Check fuel filter sumps daily to make sure there is no water. Remove and discard as necessary.

TRUCKS

- Perform daily vehicle inspection, complete the inspection form ***prior to driving***
- Prepare routes for delivery
- Document the load amount on the load rack meter sheet, deliveries on truck meter sheet and the 818 or equivalent load sheet
- Deliver fuel and record deliveries on truck tickets

Daily Closing Procedures

TANK FARM / LOADING RACK

- Close & lock all valves, shut off electrical pumps, top off generator day tank if necessary, close & lock shipping containers.
- Make another round of the facilities to make sure everything is secure, checking pipes, valves, flanges, appurtenances and tanks.
- Record clock gauges.
- Record meter readings.
- Reconcile meter readings and deliveries

TRUCKS

- Park, lock, and remove keys and put in storage container

DEPOT OPERATOR GENERAL PROCEDURES

Daily

- Walk through, observe, the facility for safety, maintenance and cleanliness
- Customer relations.
- Record, providing information for the administrative and corporate offices.
- Delivery/receipt of fuel
- Daily meter reconciliation/delivery records

Weekly

- Complete a visual on needed packaged inventory items.
- Tuesday – Prepare Weekly Gallon Inventory report, send to Juneau Plant.
- Internal Weekly Gallon Tank Report.
- Weekly meter reconciliation spreadsheet and Tankage Report spreadsheet

Monthly

- Depot Inspection
- Truck Inspections
- Physical Bulk Inventory
- Tankage Report
- Month end meter reconciliation spreadsheet and Tankage report

Quarterly

- Depot Safety Inspection

Annual

- Year End Package/Bulk Inventory
- Pressure Testing of Fuel Lines
- Meter Proving
- Update meter spreadsheet
- Fire Extinguisher Inspection
- Employees licenses, physicals are updated
- Truck Inspection

As Required

- Spill response drills; deployment, QI, safety
- Employee training
- Tank inspections, cleaning and maintenance
- Depot/equipment maintenance
- Facility clean up
- Barge activities

PETRO MARINE SERVICES
DAILY / MONTHLY VISUAL TANK INSPECTION

Date: _____

Name of Plant: _____
Tank #'s: _____

Type of Inspection

Daily	☐
Monthly	☐
Drainage	☐
Special	☐

A. Daily Checks:

	Checked
Storage Tanks (external)	☐
Condition of Secondary Containment	☐
Any Signs of Leaking	☐
Pump-houses Locked	☐
Valves Locked	☐
Yard Secured and Locked	☐
Riveted Tank Seam and Rivet Welds for Weeping and Cracks	☐

Remarks or problems noted:

_____
_____
_____

B. Monthly Checks: (per API 653, Section 4.1.3)

Check Hi Level Alarms	☐
Check Auto-gauge Tape	☐
Check Tank Vents	☐
Check Tank Valves:	
Inlet	☐
Outlet	☐
Water Drain	☐
Check Tank Shell:	
Shell Settlement	☐
Shell Coating	☐
Shell Corrosion	☐
Appurtenances	☐

Record any unusual activity during: monthly inspections, fill/empty operations, pipes for signs of ware or damage at supports, check valves for any malfunctions or signs of leaking.

_____
_____
_____

C. Drainage:

Check before draining and log date & time	☐
Water is free of pollutants	☐

Provisions made for containing any pollutants:

_____
_____

Signature of Inspector: _____ Date: _____

Signature of Supervisor: _____ Date: _____
(required on monthly only)

DAILY RECONCILIATION PROCEDURES

Following these procedures will ensure you can track all of the gallons into and out of the Depot. Even if a mistake or omission is made, this procedure will provide the audit trail necessary to find that mistake and make the correction.

Generally, you should;

- Write neatly, clearly, legibly in all cases.
- Get sequentially number delivery tickets, route and 818s (load sheets) for the day.
- Complete and record required vehicle checks.
- Verify the truck retains and meter readings against the 818s. Compare the end totalizer reading from the previous day with the beginning reading.
- Check the tank to make sure it is empty.
- Upon loading fuel, record the beginning and ending totalizer reading on the meter sheet for the load meter. Fill in the 818 and match that against the delivery ticket to ensure the correct numbers are written for every delivery.
- At the end of the day/shift, complete the 818, verify the meter readings against the truck tickets. There should be no retains.

All of this should tie out. Metered out should equal deliveries and ending inventory should equal beginning inventory less meter readings/deliveries.

- The truck tickets should equal the end minus the beginning totalizer reading.
- Total gallons on the delivery tickets should also match this total.
- Delivery tickets should match the individual entries on the load rack meter sheet Reconcile any inconsistencies.

The Depot Operator should tie all of this out before departing for the day.

Office Staff – The office staff should receive the Depot's paperwork and;

- Verify meter sheets, truck tickets, etc.
- Correct any errors found.
- Reconcile any differences or inconsistencies.

Plant Manager – The Plant Manager should receive the Depot information from the office staff and;

- Enter the sales numbers into the Tankage report spreadsheet workbook
- Complete other information for the day's sales, transfers, receipts, etc in the Tankage report spreadsheet workbook.
- Reconcile any differences or inconsistencies.

GAUGING STORAGE TANKS

Storage tanks shall be gauged at month end, prior to receiving product, after receiving product and when inventory verification is required. Care must be exercised in mounting the tank, especially in adverse weather or seasonal conditions. Fall prevention equipment is required. Fuel must be allowed to settle after receipt of fuel so an accurate gauging can occur. Additives used to improve product quality generally tend to increase the time required for water to settle out of the product to the tank bottom. If any water in a tank bottom at the start of a receipt is stirred up into the product, the product may be hazy for several hours or more until the water finally settles out.

Most tanks in inventory have external auto gauges installed. These gauging devices are generally not for inventory purposes, rather they are provided to give you an idea of your inventory level. They are particularly useful in weekly inventory checks and require a certain level of maintenance to be accurate. These gauges should be checked monthly against your manual end of month gauging for accuracy. They should be checked quarterly for proper operation, ensuring the float is free and clear and the visual gauge is clear and readable. Adjustment may be necessary based on your monthly checks. These devices should be accurate to within at least ¼ inch of your manual gauge readings. If they are not, adjust them accordingly.

Bottoms of tanks should be kept drained so far as possible of all water accumulations. Water may accumulate in the bottom of storage tanks as a result of condensation from the air drawn into the tank, or may be received with bulk delivery shipments.

Tanks receiving marine shipments should be tested for water before and after each receipt of product into the tank. All tanks, regardless of type of receipt, shall be checked for water at intervals not to exceed 30 days. When water is found, it should immediately be withdrawn using the installed water draws. Presence of water in the bottom of the tanks is detected by means of a special paste known as “thieving compound” for use in connection with gauge tapes. Spread the paste on the sides of the bob (and the lower few inches if the tape if necessary) and lower the bob to the bottom of the tank. Water changes the color of the thieving compound. The height of the changed paste color indicates the depth of the water in the tank.

Use these procedures to gauge storage tanks.

1. Check the auto gauge height before climbing the tank and record this information. Use an accurate manual gauge tape in good condition. Handle tape carefully to avoid breakage, bending or kinking the tape.

2. The tank placard on the tank near the ladder should have the reference height recorded. This is the height of the top edge of the gauging port to the bottom of the tank (strike plate). These reference heights should agree with the values noted in your strapping tables and should be checked at least annually. Record these checks on your inspection log sheets.

3. Take care when opening the gauge port cover. Do not have your face directly in line, over or otherwise directly above the gauge port. Carefully open the gauge port and avoid breathing the escaping vapors.

4. If desired, use marking paste on the gauging tape within a few inches (high and low) of the auto gauge reading. Mark the bob with water detection (thieving compound) paste. Check the bob to make sure the end is not hammered down and therefore unusable.

5. Lower tape carefully to bottom of tank until the plumb bob just touches the bottom of the tank, keeping the tape in contact with the gauging port to prevent static charge build up. Do not exceed the reference height on the amount of gauging tape let out or let the tape get slack. Avoid overextending the tape and/or laying the plumb bob over on its side or allowing the bob to slam the bottom of the tank.

6. Pull tape up and read depth of oil directly on tape to the closest $1/8^{th}$ inch. Check for water on the bob paste. Wipe bob and tape clean and repeat this procedure for verification of the readings. Wipe dry after use to prevent rust.

7. Use the installed thermometer to obtain an accurate core temperature of the fuel being gauged.

8. Secure gauging port cover and move on to the next tank.

9. If water is present in any of the tanks, draw it off through the water draw valve into a bucket or other receptacle until product appears. Allow the mixture to settle, take off the product, and dispose of the water.

MARINE OPERATIONS

General

Unauthorized persons are not permitted on or in the area of the barge access ramp when a barge is mooring, is alongside, and/or is unmooring. Smoking, open lights or fires, and operation of internal combustion engines including those in motor vehicles and boats must be kept at a safe distance from a vessel receiving or discharging volatile products.

It is the responsibility of the Captain to see that the product discharged from the barge is the kind and quantity destined for the Depot, and to discharge the product without contamination by any other product that may be in the barge. Before the cargo hose is connected, the Tankerman and the Person in Charge (PIC) will agree in writing by use of USCG declaration of inspection, Notice of Bulk Cargo Deliveries, on the quantity to be discharged.

It is the responsibility of the PIC to determine there is sufficient space in the tanks to receive the quantity to be discharged, to see that the cargo hose is properly connected to the header, to see that the product discharged is going into the correct tanks, and to see that the tanks are not permitted to fill over and beyond their approved capacities. Connecting hoses to the barge headers will be done by the Tankerman. Connecting the hose to the dock header will be done by Depot personnel, under the direct supervision of the PIC.

Means of signaling between ship and shore will or can include communication by hand signals, direct voice, two way radio, whistle, telephone, horn, or any other available and effective local means. The method of signaling and the code of signals to be used will be agreed upon by the Tankerman and PIC before pumping is started.

When, in the opinion of the Captain or of the PIC, conditions exist either aboard the vessel or on shore that would not permit loading or discharging operations with safety, cargo handling shall not be started, or if already started shall be stopped, until conditions are safe. Particular care shall be taken to see that the barge and wharf are adequately illuminated at night to permit safe operations.

During the period a barge is discharging bulk petroleum products, the pipe line used in the operation must be patrolled periodically as necessary to check for leaks. While a barge is discharging, the PIC will be stationed on the dock in the vicinity of the hose connection to operate dock valves in case of emergency.

If the quantity of product to be received will fill or nearly fill the storage tank, a company employee or assistant to the PIC will station himself at or near the tank being filled in sufficient time prior to topping off to be able to signal the PIC/Tankerman when to stop the transfer.

After having been notified of the barge's readiness to discharge, before any movement of oil shall be permitted verification must be obtained from the Tankerman that they are in compliance with all safety regulations.

The PIC will ensure sufficient hose is used when loading or discharging a barge, with proper allowance for the rise and fall of the tide, and the movement of the barge. Hoses must be tested periodically in accordance with current regulations.

Always examine hoses carefully before use. If any defects are noted, if the lining is frayed or loose, if excessive checking or cracking is present, do not use the hose until it is examined and determined fit for use. If in doubt, do not use it. All condemned hose must be immediately marked "Condemned" drained, cut in half and disposed.

Hose pressure should be kept below the maximum allowable working pressure as marked on the hose or piping to be used.

In connecting the hose, securely tie the cam arms to prevent inadvertent opening and release of the cam.

If a leak occurs in the pipe line or hose connection during the transfer, stop pumping, contain and clean up the spilled product immediately and make repairs at once. In order to avoid undue pressure on the hose at the completion of the transfer, the barge valves must be closed before closing the wharf header valve during transfers from the barge to the Depot.

Drip pans shall be used and precautions taken to avoid the spillage of products when connecting or disconnecting hoses. After the hose has been removed, a camloc cap and gasket must be secured in place on the header to prevent leakage while the header is not in use. Securely tie the cam arms to prevent inadvertent opening and release of the cam.

Carelessness on the part of the company employee or the tankerman, or failure to observe the company's instructions for the safe operation of marine stations may result in serious personal injury or property damage. Observe the rules for safe operation, and make every effort to ensure all personnel involved in the transfer operation do the same.

Smoking, open fires, and the operation of internal combustion engines, either in boats or onshore, must be kept at a safe distance. If there is any indication that a fire hazard exists, deliveries must be stopped until the hazard is removed.

Care of Wharf and Equipment

Good housekeeping is important in avoiding personal injury and fires. The wharf, approach, and equipment must be maintained in good condition. Loose or broken planking and piling must be immediately repaired or replaced. Pipe lines, valves, and hose must be maintained free from leaks and worn or damaged hose must not be used. Hoses should be

stored in a manner to protect it from damage or deterioration and should not obstruct passageways.

The pipe lines, hose and other operating equipment must be inspected frequently and defects corrected or reported for repair or replacement. All delivery hoses must be pressure tested in accordance with current regulations.

Electrical wiring, switches, fixtures, lights, and motors should be regularly inspected and any defects corrected immediately. These repairs shall be made by a qualified electrician and in compliance with all local and state electrical codes.

Block valves installed in the cargo pipe lines should be closed when not in use and when the Depot is closed.

Valves located outside or valves that could be tampered with must be kept locked when a company employee is not on duty.

Oil spills must be contained and cleaned up immediately and must not be permitted to reach the water. Use drip pans to protect against spills when disconnecting hoses or breaking pipe connections. Products collected in drip pans must be immediately disposed and the pans wiped dry and clean. If a large spill should occur, initiate containment methods and follow procedures and notification established in the Depot Facility Response Plan.

BARGE TRANSFER PROCEDURES

Refer to the Depot USCG Operations Manual for specific direction on fuel transfer operations at the Depot.

Summary of Fuel Transfer Operations

- Marine Cargo Certificate received from Supply and Distribution
- Tugs, pilots and U. S. Coast Guard notified as required
- Docks readied for barge
- Shore valves closed until barge secured
- Hose connected to header when barge arrives
- Gauging completed prior to barge arrival
- Valve line ups not set until barge is secured
- Line ups re-checked prior to pumping each product
- Barge moored by tug/barge personnel and shore crew as directed by the Master
- Mooring will be accomplished as quickly and safely as possible
- Hoses will be cam-loc'd properly
- Verification of cargo and quantities prior to discharge, Certificate of Analysis or barge load sheet
- Fuel specification sheets given to Person in Charge prior to transfer
- Samples taken, tested from each barge compartment, retained until next barge delivery
- Prior to transfer, agreement between Tankerman and Person in Charge on products being transferred
- Samples taken and tested at beginning of transfer and every hour
- Determine and record pumping rates during transfer
- If specifications differ at any time from product specifications provided by Tankerman, stop transfer and call Juneau Bulk Plant Manager
- Sample after transfer complete, check for water
- Close, lock and isolate tanks not meeting specifications
- Close and lock tanks after transfer
- Shore crew will unmoor barge at Master's direction
- Shore crew responsible for disconnecting hose
- Ensure dock and shore valves are closed and locked
- Leave dock in clean, orderly condition
- Gauge shore tanks, check for water after fuel has settled and record results

BARGE OPERATIONS, GENERAL

The following is the required procedure for receiving, mooring, working and unmooring a barge supplying the facility.

Prior to Arrival

- Comply with the requirements of the Facility Security Plan according to the Maritime Security level in effect, if required
- Walk the dock facility to ensure it is ready for receiving the barge
- Ensure the shore tanks have enough available space for product to be discharged from the barge
- Assign Person in Charge duties for the transfer operation to a qualified person
- Assist the tug and barge as requested by the tug Master
- Clear the dock of all unauthorized people and place appropriate signage.
- Ensure all shore valves are closed

Mooring the Barge

Shore personnel will handle tie up lines for the barge unless their own crew is used. If own crew is used, shore personnel will assist the tug crew.

- Line handlers and dock workers shall wear Personal Flotation Devices at all times until hose is connected to the header
- Two people will normally work each tie up line for safety and efficiency
- Stay off the bull rails and stay out of the bights of lines and hoses
- Follow instructions from the tug Master
- Receive the heaving line and quickly place the mooring line on the bollard or cleat
- Remove heaving lines and make them up neatly for return to the barge after mooring lines are in place and the barge is secure
- PIC receive and sign Declaration of Inspection

Before Discharge Begins

Shore personnel are responsible for connecting/disconnecting the dock-end discharge hose. Ensure cam-loc fitting levers are completely engaged and tied through with a keeper, wire ties or line to prevent accidental opening.

- Receive load paperwork from the Master and confirm with shore paperwork
- Hold pre-discharge conference with all personnel to discuss safety, procedures, quantity to be received etc.
- Confirm fuel specifications
- Confirmation tests as required for specific gravity, color, clarity and flash
- Take gauge, temperature and water readings of all shore tanks
- Confirm barge discharge tank, product and order
- Confirm cargo line set up and receipt tank
- Confirm communications with all critical personnel

- Sample and test each barge compartment as required
- Confirm fuels are within specification. If not, contact the Juneau Plant Manager immediately
- Begin fuel transfer

During Fuel Discharge

The PIC and the Tankerman shall be in constant communication at all times. If there is a relief of the original PIC, the relieving PIC shall receive a full briefing as to the status of the transfer operations and sign the DOI. The relief shall be in the presence of the Tankerman. Notify all personnel involved.

- Secure the loading facility.
- Sample and test as required. Specific gravity and flash upon change of compartment and every hour during receipt. Record readings. If differences exceeding tolerances are found, stop the transfer immediately and contact the Juneau Plant Manager.
- The Tankerman shall notify the PIC each time a barge compartment is changed.
- The PIC shall keep the Tankerman informed when topping off shore tanks and closely coordinate flow and shut down.
- As topping off occurs, shore personnel will monitor tanks continuously. Tanks are equipped with over fill prevention valves and high level alarms.
- Maintain transfer records including pressure, flow rate, specifications, fuel type.
- Maintain Dock Log
  - Name date and voyage number, Master Name
  - Arrival time
  - Hose connection time
  - Time discharge commences
  - Pumping rate
  - Gauges

Stopping Transfer Operations.

The transfer will be stopped if:

- Any break occurs in the transfer system and/or any product is released.
- A fire occurs at or near the facility.
- An electrical storm occurs in the area.
- The communication system becomes inoperative.
- Concentration of vapors is noted on the barge, dock or facility.
- Fuel specification changes during receipt.
- Any emergency that occurs that affects the safe transfer of fuel.
- The designated PIC leaves the facility without relief or is unable to be contacted.
- At any time any person involved in the transfer becomes aware of an unsafe, improper or confusing situation.
- Directed by Mine authorities.

After Unloading.

- Close all cargo valves, tank valves and secure transfer pumps.
- Gauging will be completed by the shore personnel after the fuel has been allowed to settle the required amount of time.
- Shore personnel are responsible for disconnecting transfer hoses.
- Disconnect and drain hose.
- Ensure all hoses are drained free of product and that no product escapes outside of the containment system.
- Secure and cap header and fuel hose.
- Complete required paperwork and documentation.
- Sufficient linesman shall be available to assist with lines under the direction of the tug Master.
- Unmoor tug/barge. All dock personnel are required to wear Personal Flotation Devices.
- Complete Dock Log
  - Time discharge completed Time hoses disconnected
  - Time unmooring commenced.
  - Time unmooring completed
  - Departure time and next destination of tug/barge.
  - File records.

Shore Personnel Responsibilities.

Prior to Barge Arrival

Depot Operator

- Assume PIC duties
- Provide copies of Supply and Distribution paperwork

Person in Charge

- Follow Facility Security Plan (FSP) if required
- Determine barge arrival time well in advance
- Ensure dock is ready to receive the barge
- Assign duties of shore crew
- Ensure Supply and Distribution paperwork is correct
- Meet barge upon arrival and ensure procedures are followed
- Inform shore crew of barge arrival time
- Meet with and brief shore crew on transfer operations
- Inspect dock facility and ensure readiness
- Check and ensure communications with barge and shore personnel

Shore Operator

- Read and be familiar with Supply and Distribution paperwork
- Ensure gauging equipment is ready, serviceable and available

- Check and ensure communications with PIC

Barge Mooring – Prior to Discharge

Person in Charge

- Meet barge at the dock
- Complete Declaration of Inspection (DOI)
- Receive fuel specifications from the Tankerman
- Sample and test products
- Ensure shore crew are following instructions and safety precautions and requirements of the FSP (if required)
- Ensure hose check complete w/Tankerman after hose connected
- Ensure cargo line is set up for correct fuel transfer
- Ensure communications are established and maintained

Shore Operator

- Ensure shore valves are closed upon barge arrival
- Assist tie up crew by pulling lines, placing the barge access ramp, lower or hoist hoses to/from the barge
- Ensure communications are established and maintained

During Transfer Operations

Person in Charge

- Ensure transfer process is proceeding correctly
- Ensure fuel specifications tests are conducted and recorded
- Watch for kinked hoses, leaks, spills, pressure changes etc.
- Keep shore crew/barge crew informed of compartment changes, start/stop, rate changes, topping off
- Ensure communications are established and maintained
- Do not leave header location unless relieved by another PIC, relief PIC signs DOI and everyone is notified

Shore Operator

- Notify PIC when ready to begin transfer
- Observe receiving tank immediately after product receipt begins
- Determines pumping rates
- Will be at the tank as it reaches safe fill level
- Works closely with and at the direction of the PIC
- Ensure communications are established and maintained

TANK TRUCK LOADING PROCEDURES

General

Carelessness or inattention during loading operations may lead to fires, spills and many other undesirable situations. It is critically important the driver/loader be thoroughly trained and certified and possesses enough experience, knowledge and ability to unerringly follow established loading procedures.

Only authorized personnel may load or unload a tank truck at the Depot. These authorized people must attend a safety briefing on proper loading and operation, demonstrate sufficient competence and knowledge in these procedures and safety precautions and have written authorization from the Juneau Plant Manager in order to use the loading facility.

The Depot Operator will ensure the loading station is maintained in excellent working order, has complete identification markings, product tags and color codes in accordance with applicable standards.

Under no circumstances will any tank truck which is unsafely constructed, equipped or maintained be loaded at the Depot. Tank trucks carrying volatile products will not be loaded unless equipped with muffler exhaust pipe shields. Trucks not so equipped but in fuel oil, diesel, or burner oil service may be filled after pipe and muffler cool.

The loading facility will be secured during barge receipt activities. The service line valves and supply valves for that product must be closed and locked.

The Depot Operator will ensure complete and appropriate documentation of all loading activity, including transfer logs, load sheets and meter sheets.

Loading Procedures

- No smoking or ignition source within range of vapors from the loading facility
- Repairs or adjustments to trucks while loading are prohibited
- Be familiar with the loading facility and emergency procedures
- Keep the loading facility and area clean

If a spill occurs, stop loading immediately and conduct all appropriate response measures per company directives. Report all spills to the Juneau Plant Manager.

- Spot truck in proper position.
- **Stop engine, turn off lights, set hand brake, close truck faucets.**
- Block tires with wheel blocks.
- **Attach bonding cable.**
- Inspect all tank compartments; ensure correct product tags on domes/valves. Keep dome covers closed.
- Ensure all equipment, valves, pumps operating correctly, hose connections tight.
- Energize pumps, record meter readings on meter sheets.
- **Do not leave the truck unattended while loading.**
- **Stay out of the truck cab while loading.**
- **Load one compartment at a time.**
- Perform White Bucket Test.
- Ensure scully system is operational.
- Connect dry brake coupling, set pre-set gallons.
- Use valve to control flow of fuel. Top off slowly. Fill small compartments slowly.
- Use bucket to catch fuel at disconnect.
- Disconnect hose and place cap cover and stow neatly in shipping container.
- Stop the pump. Record meter readings.
- Close block valves on supply lines, close internal valves on trucks, recheck product tags on domes and valves and recheck all package fittings.
- **Detach bonding cable**
- Remove wheel blocks

TANK TRUCK UNLOADING PROCEDURES

If a spill occurs, stop unloading immediately and conduct all appropriate response measures. Report all spills to the Juneau Plant Manager immediately.

You must communicate, visually inspect and confirm the fuel delivery process and mechanisms. Even if the assurances of the customer are taken at face value, an incorrect product delivery will result in, at the very least, an unhappy customer.

Pumping a tank truck into the wrong storage tank may result in an undesirable fuel mixture. This may be avoided by close attention to operating detail, setting valves properly, correctly reading placards and product tags. You must know the product delivered is put into the proper tank and see that the tank or its fill pipe is properly tagged or labeled.

Any accidental product mixtures must be promptly reported to the mine and the Juneau Plant Manager to ensure corrective action is immediately addressed.

Unloading Procedures

- Spot truck in proper position.
- Stop engine, turn off lights, set hand brake, close truck faucets.
- Block tires with wheel blocks.
- **Attach bonding cable.**
- Contact Mine Office or customer office as required.
- Inspect all discharge fittings. Make sure all equipment, valves, pumps are operating correctly and hose connections are tight.
- Gauge storage tank into which product is to be pumped to ensure sufficient ullage is available for the entire delivery. Do not depend on tank gauges to verify storage tank levels – physically stick the tank
- Ensure hose is connected to the proper unloading connection. Set tank valves and other valves as required.
- Check hose connections for leaks and strain.
- Use truck pump for unloading, taking extra precautions to guard against hose failure.
- Observe tank periodically to ensure there is no overflow.
- **Do not leave the truck unattended while unloading.**
- **Stay out of the truck cab while unloading.**
- **Unload one compartment at a time.**
- After unloading is finished, stop pump, close valves, inspect inside of the vehicle tank to ensure it is empty, disconnect hose, drain hose into bucket, deposit contents into appropriate container. If the vehicle tank is not empty, this may indicate an uneven surface at the truck pad which should be reported to the facility manager.
- Detach bonding cable
- Remove wheel blocks

LOADING PROCEDURES PLACARD

- No smoking or ignition source within range of vapors from loading facility
- Repairs or adjustments to trucks while loading are prohibited
- Be familiar with the loading facility and emergency procedures
- Keep loading facility and area clean

If a spill occurs, stop loading immediately and conduct all appropriate response measures per company directives. Report all spills to the Juneau Plant Manager.

- Spot truck in proper position.
- **Stop engine, turn off lights, set hand brake, close truck faucets.**
- Block tires with wheel blocks.
- **Attach bonding cable.**
- Inspect all tank compartments, ensure correct product tags on domes/ valves. Keep dome covers closed.
- Ensure all equipment, valves, pumps operating correctly, hose connections tight.
- Energize pumps, record meter readings on meter sheets.
- **Do not leave the truck unattended while loading.**
- **Stay out of the truck cab while loading.**
- **Load one compartment at a time.**
- Perform White Bucket Test.
- Ensure scully system is operational.
- Connect dry brake coupling, set pre-set gallons.
- Use valve to control flow of fuel. Top off slowly. Fill small compartments slowly.
- Use bucket to catch fuel at disconnect.
- Disconnect hose and place cap cover and stow neatly in shipping container.
- Stop the pump. Record meter readings.
- Close block valves on supply lines, close internal valves on trucks, recheck product tags on domes and valves and recheck all package fittings.
- **Detach bonding cable**
- Remove wheel blocks

UNLOADING PROCEDURES PLACARD

- No smoking or ignition source within range of vapors from TTLR
- Repairs or adjustments to trucks under the TTLR are prohibited
- Be familiar with the TTLR and emergency procedures
- Keep TTLR and area clean

If a spill occurs, stop loading immediately and conduct all appropriate response measures per company directives. Report all spills to the Plant Manager.

- Spot truck in proper position.
- Stop engine, turn off lights, set hand brake, close truck faucets.
- Block tires with wheel blocks.
- Attach bonding cable.
- Contact Plant Office or customer office.
- Inspect all truck tank compartments, gauge retains, put correct product tags on domes and valves. Keep dome covers closed except on compartment being gauged or loaded.
- Make sure all equipment, valves, pumps are operating correctly and hose connections are tight.
- Ensure sufficient ullage exists in tank to be loaded.
- Ensure hose is connected to the proper unloading header for the product in the tank truck. Set tank valves and other valves as required.
- Check hose connections for leaks and strain.
- Use facility pump for unloading where possible. If truck pump is used, take extra precautions to guard against hose failure.
- Observe tank periodically to ensure there is no overflow.
- **Do not leave the truck unattended while unloading.**
- **Stay out of the truck cab while unloading.**
- **Unload one compartment at a time.**
- After unloading is finished, stop pump, close valves, inspect the inside of the vehicle tank to ensure it is empty, disconnect hose, drain hose into bucket, deposit contents into appropriate container. If the vehicle tank is not empty, this may indicate an uneven surface at the truck pad which should be reported to the Plant Manager or facility manager.
- Detach bonding cable
- Remove wheel blocks

LOADING FACILITY AUTHORIZATION

_____
Name

_____
Employer

_____
Location

The above named individual is authorized to operate the Petro Marine Services Services loading facility at the named location.

This person has attended a thorough operational briefing on the proper and safe use of the facility, including emergency procedures. The named individual has demonstrated sufficient knowledge and competency to operate the facility safely and protect the quality of fuels dispensed.

This person agrees to abide by all safety rules and applicable Petro Marine Services company policies and to follow all posted procedures in operating the loading facility. Failure to do so will result in immediate termination of these privileges. Undesirable conditions resulting from improper or inappropriate use of the loading facility by the above named individual may result in further action as appropriate.

_____
Plant Manager

_____
Date

_____
Authorized Individual

_____
Date

HANDLING PROCEDURES FOR WASTE PRODUCTS

The proper identification and correct handling of waste products is essential to limit liability and avoid any unnecessary environmental costs or fines.

This procedure provides the plant with the necessary information and forms to properly identify, transport and dispose of waste products.

PROCEDURES

Identifying the Product

Identify the material that requires disposal. In all cases, keep products segregated. NEVER MIX FUELS! Some of the products that we handle are:

- Tank bottoms - mid - distillate (non-regulated)
- Used oil (non-regulated)
- Contaminated soils or gravel (regulated hazardous waste)
- Mixed fuels (regulated hazardous waste)

Labeling the Container

Once you have identified a product that has become a non-inventory item, you must immediately label the container that holds that product. Labeling may be completed by marking the container using any "legible marker".

How you label the container is extremely important. DOT requires a specific sequence of information.

Non-Hazardous Waste

To label a container of tank bottoms from a diesel tank, your label would read:

- Diesel tank bottoms from Tank #___
- Diesel fuel, 3, NA1993, III, 55 gallons
- Date:

Labeling for gasoline tank bottoms:

- Gasoline tank bottoms from Tank #___
- Gasoline, 3, NA1203, II 55 gallons
- Date:

HAZARDOUS WASTE

If the material is a hazardous waste contact Wendell Pahang at the Ketchikan Plant (907 225 2106) for assistance with proper labeling instructions or contact Philips Environmental at 800 478 9008.

Choosing a Company to Dispose of the Product

Call Philips Environmental at 800 478 9008 for information and assistance.

The disposal company will require you to prepare a profile form for each type of material that you request them to dispose of - work with the disposal company for the correct completion of the form. Many profiles already exist for most commonly produced waste materials.

Preparing a Manifest for Shipping

You must be able to track each container of product from your plant to the disposal site. Your first task is to determine who will transport the containers. If the product is not regulated, it may be shipped by a common carrier, or by our own trucks or barge. If the product is regulated, it must be handled by an EPA/ADEC approved carrier.

A sample of an approved manifest in attached. Make sure a copy is available for each transportation company, and for the disposal company. You will need to obtain signed copies from each transportation company and the disposal company to complete the necessary paper trail to document that the containers reach the destination and were disposed of.

You must create a file for the containers that shows the complete transportation process and has a letter from the disposing company confirming that the material has been disposed of and how.

Non-hazardous waste manifests and other hazardous waste forms as well as markers, labels and test kits are available from Philips Environmental by calling the toll-free number listed. You may also order products, such as the non-hazardous waste manifest #12-BLS-C5 from J.J. Keller at 800 327 6868.

TANK BOTTOM PROCEDURES

Waste stream reduction and control is an essential component of our operations. One of the largest generations of waste occurs when storage tanks are cleaned and tank bottoms are pumped out or water draws are used. Various environmental regulations apply to the handling, storage, transfer and disposal of these materials. It must be done correctly and efficiently to reduce the company's liability exposure, risk and expense. We should be doing whatever we can to reduce waste streams and reuse products where ever we can.

As a basic rule, the company owns the generated waste "from cradle to grave" meaning from the time the waste is generated to the time it is actually disposed. In nearly all cases involving our company, the ownership ends with incineration, recycling or consumption. This may be accomplished through use of incinerators that are company owned or through arrangements with appropriately permitted sources such as contractors, government entities or third party waste handlers.

One of our largest single point generation of waste is through tank cleaning. Tank bottoms generate two waste streams; off specification diesel fuel and gasoline waste. Each is treated differently as one is a hazardous waste (gasoline) and the other is off spec fuel (diesel) and the disposal costs vary widely because of this designation. If you have ANY questions regarding shipment and/or disposal of tank bottoms, contact Paul Avila at the Ketchikan Plant or the Operations Department at the Corporate Offices. Planning ahead is essential to managing, reducing and correctly handling these wastes.

When cleaning storage tanks, the following procedures are established. **In all cases where drums are used for storage or shipment, ensure they are clean, undamaged, serviceable drums.** The container must be in a good and serviceable condition. Excessive dents, bulging tops or bottoms, dented chines, excessive rust, sludge or paint on the drum would not qualify as serviceable.

Diesel products.

- Have the cleaning crew pump out as much of the good product into another tank, without pumping water or sludge into the tank.

- Pump all water and whatever fuel is left in the bottom of the tank into drums without pumping solids if possible.

- Put all solids into open top drums.

- Place all absorbent materials and combustible solids used for tank cleaning into bags.

- Mark all drums immediately with the date, product and tank number. The labeling on the drum must **clearly** identify the product in the drum, the accumulation date and the location (your plant).

- Let the drums settle for a few days so the solids and water can settle out. Check for amount of water and solids in drums and mark each drum with the levels.

- Pump all good fuels out of these drums back into the tank or into clean drums. Make sure no water is pumped back into the tanks or drums. All waste fuels should be pumped into waste oil drums without pumping water or solids into them.

- Separate water and solids by pumping all water out of those drums without pumping solids into other drums.

- At this point you will have drums that have mostly solids in them. Cut the lids these drums and dump the contents into open top drums. At this time also, pump the waste liquid off the open tops drums. Close these drums securely, ensure the drum is clearly marked with tank number, contents, date and plant. Prepare these for shipment to Ketchikan, or if a third party handler such as Philips Services Corp is available, arrange disposal directly with them and have them complete the required manifests and paperwork. Submit a Purchase Order Request for the cost.

- You will also have drums with water or mostly water only in them. Set these drums up to be drained through the Water Scrubber Tote and into your oil/water separator system. The absorbent material in the tote will remove any remaining petroleum products in the water. Drain the drums through the tote and discharge the water into your oil/water separator system. Ensure no fuel or solids enter the separator.

- The drums with off spec diesel fuel (no solids or water) may be used for used oil drums and may be mixed with used oil. Make sure these drums are clearly marked as “Used Oil”. If you have sources that have used oil burners, this product may be burned in those devices. If you do not, these drums may be shipped on the barge to

Ketchikan for their use in their used oil burner. You must have a written document of the cargo being shipped. Send one copy to Ketchikan, keep one copy and give one copy to the barge Person in Charge.

The drums that have had the lids cut off may be sold or given away as burn barrels.

Gasoline Products.

Follow the same procedures as above for gasoline products, except these products will be shipped to a third party disposal company. Separate as much useable product from the tank bottoms as possible and drum the remaining portions for disposal. Arrange shipment to Ketchikan of these drums, or if a third party such as Philips Services Corp is available, arrange shipment directly with them and submit a Purchase Order request for the cost.

Absorbents and other Combustibles.

Ensure these drums are clearly marked as to contents and ship via barge to Ketchikan. Ketchikan will arrange transshipment to Craig for incineration using SmartAsh burners.

Do not forget to account for these gallons in your tankage report. The gallons shipped out or "wasted" shall be recorded as a loss and noted in your gain/loss explanation.

WAREHOUSING

One of the most important factors in the efficient operation of a bulk plant is the arrangement of stock in the warehouse. Much effort, time and unnecessary handling can be saved through careful planning and attention to detail. Additionally, it is important that stock be ordered with careful planning to eliminate dead stock and/or slow moving inventory. The arrangement of stock in the warehouse should use the space to the best advantage, facilitate the movement of products, to segregate by sequence and accommodate inventory tasks.

The stock should be segregated by brands, with the fastest moving items nearest the shipping platform and the stock should be rotated while filling orders so the older stock is moved out first. Lithographed containers may be easily damaged if struck by a hand truck or other heavy object. Warehouse aisles should be sufficient to meet OSHA standards and to handle the stock safely. Surplus, slow moving and unsalable stock should be reported on the Semi-monthly Plant Manager's Report and to the Package Inventory Clerk to allow transfer to another warehouse for sale or other disposition.

Cases and cartons must always be stored in the warehouse to protect them from the weather and theft. Service drums may and Standard Flamo cylinders should be stored on the warehouse platform in the open. Iron drums that are to be delivered to customers should be protected against damage from the weather and the deterioration of paints and stenciling/labeling. Broken drum stock and packages should be kept at a minimum and stored where they can be secured to prevent contamination and theft.

Non-Stock Supplies

To simplify checking, delivery and inventory work, all non-stock supplies should be kept separate from product stocks. Inventories should be kept to a minimum, consistent with operational and administrative requirements. Surplus, broken, or obsolete material and equipment should be reported to the Office and disposition instructions requested from the Package Inventory Clerk.

Steel Drums

The steel drum equipment of our Company represents a very large investment and has always been one of our most important transportation mediums. Clean and attractive drums are a distinct index to quality, create a favorable impression, and will assist in the Company's sustained reputation for care in preparing and marketing of the highest class products. Drums which are in poor physical condition, dirty or poorly painted, and improperly marked, reflect adversely on your plant and our Company.

Drum Classifications

Non-Returnable Steel Drums - These drums are sold to the customer with the product they contain, and become their property.

Drum Types

Although the Company has used many types of drums over the years, one basic type is prevalent. This type has a nominal filling capacity of 55 gallons, is straight-sided with two pressed-in rolling hoops and has two flanged bungs in the head. Embossed on the bottom is the manufacturer's name or initial, gauge of material, year manufactured, and the Interstate Commerce Commission (ICC) rating number.

Of this basic type drum, we extensively use a Light Weight Steel Drum. These are constructed of 18 gauge steel, weigh 50 lbs and are embossed with one of several ICC rating numbers which designate how they may be used.

Only those drums embossed ICC may be used for commercial or interstate transportation of products classified by ICC regulations as Flammable (products with flash points of 80^{o}F or below, e.g. gasolines, some thinners and solvents, etc.). Even ICC. 17E drums can only be used in such service if re-tested at the supply point between each filling. Flammable products may be delivered locally (within a State) by Company or Distributor trucks in refilled lightweight drums without re-testing.

Care in Handling

If drum stocks received show leakage from loose bungs, these should be inspected for volume and the bungs tightened at once and all oil wiped off drum heads to prevent unsightly appearance and loss to the environment. If shortage in the drum contents is noticeable or measurable, the drum and product shall be rejected and reported to the Package Inventory Clerk. Damaged drums received should be reported to the Package Inventory Clerk.

Wherever possible, keep drums on end from the time they are received at the plant until delivered to customer. This minimizes rolling and upending, (a high injury activity). Drums stored on end in the open should be placed in a tilted position with both head bungs equally distant from the low portion of the head, so that water will run off the head and not leak through the bungs.

All empty drums should be thoroughly drained of product and bungs screwed tightly in place before releasing for shipment.

Handling Steel Drums

Certain methods and equipment have been developed for handling of drums to protect employees from injury. For your safety and well being, learn these methods, familiarize yourself with the equipment and use them every time you handle drums.

Gloves offer hand protection when handling drums. Keep them clean and in good condition. Soiled and/or worn gloves contribute to accidents. Safety shoes are strongly recommended to protect you from injury.

For your safety and protection, always test a drum to see whether it is full, partially full, or empty before moving it. Use the proper equipment and techniques.

Use a bung wrench when removing or replacing bungs and plugs from drums. The proper use of this wrench instead of a pipe wrench or a monkey wrench will prevent injury to the hands.

Roll drums by pushing on the center rolling rings or otherwise keeping the hands to the center on top. Grasping the end chines puts your hands in a good position to be pinched between the drum and other objects. Never roll drums with your feet.

Drum Tipping

The following equipment and methods shall be used to lay drums down or to up-end them from a horizontal position.

The Drum Tipper Stand was developed to permit one person to safely place a full drum in a horizontal position at a height to draw product into five gallon delivery buckets. The Tipper is equipped with extension handles which should always be pulled out full length before attempting to break the drum over from the vertical to horizontal position. It is equipped with a double hook, mounted on a rod, which engages the top chine of the drum and holds it securely on the tipper. When tipping bilge shaped drums, first screw the faucet (tapered shank) well into the drum. Then place the 3" x 7" oval ring over the faucet and hook the tipper stand's hook into the ring. This type of drum can then be tipped safely.

While primarily designed to up-end drums, the Drum Up-Ender may be used to tip drums. Stand with the side of the body toward the drum and grasp the stick shoulder high. Rock the weight of the body toward the drum and then away from it, pulling the stick with the arm (elbow bent) and body momentum. The drum will tip easily and can then be balanced in the tipped position against your leg. Reverse the position of the stick, and then let the drum down easily, keeping the back straight and supporting all the weight on the leg muscles. If you need help, get another person to assist you.

There are several safe methods to use to tip a drum when a Drum Up-Ender is not available. The preferred method is to use two people.

The two-hand brace and pull method should be used whenever the drum is in a position where you can push against some other stationary object, such as an adjacent drum or the side of your truck when tipping a drum. Place your feet no further apart than the width of your shoulders and directly against the bottom of the drum. Keep your back straight by slightly bending your knees and grasp the far top side of the drum with your right hand; Push against the adjacent object with your left hand just as hard as you pull the drum toward you with the right hand. The load is thus equalized and the drum comes over easily and smoothly.

When the drum is out in the open, the two-hand pull method may be used. Place the right toe against the drum, stand straight, grasp the top chine on the side of the drum nearest you. Lean over the drum and swing your body back, dropping your body straight down by bending the knees and keeping the back straight. The weight of your dropping body pulls the drum over easily. During the downward movement of your body, keep your left foot behind you to act as a balance and to catch the weight of the tipping drum.

When the top of the drum is covered with snow or water it is safer to push the drum away from you. Stand with the feet about the width of the shoulders apart. Squat down, keeping the back straight and lean against the drum with your chest against your hands, back straight. Push the drum over by straightening the legs.

Drum Up-Ending

The following equipment and methods should be used to up-end drums from the horizontal to the vertical position.

The Drum Up-Ender is a steel handle with a concave shaped metal fitting and two steel hooks mounted at one end. With this leverage device a person can safely lift drums from horizontal to vertical position with a minimum of physical effort and injury potential. Your back should be nearly vertical and legs straightened during the lift.

The combination Drum Up-Ender/Bung Wrench is intended primarily for use at a customer's location. Use the same posture and lifting technique as with the regular up-ender stick.

It is sometimes necessary to up-end drums when leverage devices are not available. There are two correct methods to use, depending upon the height of the individual. Correct body position is essential in this operation.

Short Man's Method. Squat down with the feet directly under the shoulders and 8 to 12 inches apart, hips well below the level of the shoulders, and back as nearly vertical as possible. Place the hands on the lower part of the drum chine and lift with the strong leg muscles.

Tall Man's Method. Tall people have difficulty in lifting in the above manner as their knees hit the drum, making it awkward to keep hips low and back vertical. Tall people should stand erect, feet directly under shoulders, facing the drum. Bend the knees and grasp the top chine of the drum with both hands. Keeping the back vertical, straighten the legs, leaning slightly forward as the drum starts to rise. The secret is to time the motion smoothly so that the momentum of the drum carries it up after the strong leg muscles start it moving.

With a round bellied drum, throw a rag under the far chine to prevent slipping and, using the tall man's posture, lift up by straightening your legs, then push down, then up. The surge of the product in the drum will materially assist in bringing the drum to an upright position.

Unloading Drums From Trucks

A drum can be lowered safely from the truck bed to the ground in the following manner:

Tip the drum slowly using the brace and pull method and work it back until it rests in a tipped position against the bar which runs across the back of the compartment or against the bottom rolling ring of an adjacent drum.

Leave the drum balanced in the tipped position, get down on the ground and pull the drum over to a horizontal position on the truck bed.

Place the skids into position and work the drum off the truck onto the skids.

Guide it down end ways by standing to one side of the skids as it descends. Never stand between the skids nor try to roll a drum down the skids.

Do not try to remove drums by standing on the ground, or the tail gate, and dropping the drum to the ground. KEEP CLEAR OF THE DRUM.

Packaged Products

The cans, pour pails, and other lithographed containers sold by the Company must be in good condition and convey care in handling and quality of merchandise.

Dented and/or rusty containers, torn or defaced labels, indicate poor handling and quality control measures. Consumer confidence is eroded if they are presented with packaged products in this condition. Every effort should be made to handle, store, and deliver packaged products stock in good condition.

Cartons are lighter in weight and more easily handled than wooden cases, but they do not furnish as much protection to the merchandise as cases and they must be handled more carefully. During wet weather, particular care should be taken to keep cartons as dry as possible to prevent the cartons from softening and the cans from rusting.

Cases and cartons should be placed on wooden strips laid on the warehouse floor in order to protect the packaged stock, including lithographed containers, from moisture. Cartons and various lithographed containers, due to their shape and construction, should not be piled than a person may conveniently reach. They should not be piled as high as wooden cases in order to prevent tipping and/or crushing.

Shelving should be used for the convenient segregation of the various brands packed in small containers. The space under the shelves should be used for the heavier packages and the lighter packages should be stored on top of the shelves. Stock should not be piled on top of the shelves to a height of more than about 24 inches to avoid overloading.

When opening cartons, use one of the safety knives designed for that purpose. Using an ordinary open bladed knife, such as a pocket knife, may result in personal injury and/or damage to the product. Cartons should be opened by cutting the top along three sides leaving the fourth side as a hinge, and this lid should be kept closed.

Broken cases should be covered with a lid to protect the cans from dust while stored in the warehouse.

Container Labeling

The Federal Hazardous Substances Labeling Act requires all personnel who sell products from bulk into a package (55-gallon drum or smaller), whether furnished by us or the customer, to apply a combined product identification and warning label before the container is released to the customer. Products most often sold under these restrictions are gasolines, kerosenes, thinners, solvents, and gas oils.

How to Lift

The five fundamentals of safe lifting posture are:

Divide the load equally on each side of the body. This throws an equal load on the back muscles on either side of the body and prevents straining the muscles on one side when trying to keep an erect position.

Keep the lower back in normal curvature. Many strains are caused by twisted positions and by throwing most of the load on only a few weak muscles of the body.

Bend your legs, using the strongest muscles in your body (the calf, thigh, and buttocks muscles).

Keep your feet no further apart than the width of the shoulders, protecting the lower abdomen and minimizing the possibility of hernia.

Keep a firm and level footing to avoid slipping and twisted body position.

Back strains can be prevented by following the above lifting methods and by using the tools available that are designed to minimize the effort expended. Finally, get help if necessary.

Handling Packaged Products

When lifting single cartons or cases by hand, employ the five basic fundamentals of safe lifting posture explained above. Avoid twisted body positions and over-reaching when lifting.

Use a hand truck or pallet jack when moving cases. Truck no more cases than you can handle safely. Do not obscure your vision when carrying or trucking cases.

PERSON IN CHARGE TRAINING AND DESIGNATION

33 CFR 154.730 Evidence of Designation.

Each person in charge shall carry evidence of his designation as a person in charge when he is engaged in transfer operations unless such evidence is immediately available at the facility.

33 CFR 154.710 Designation and Qualification.

No person may serve, and the facility operator may not use the services of a person, as person in charge of facility transfer operations unless:

(a) The facility operator has designated that person as a person in charge;

(b) The person has had at least 48 hours of experience in transfer operations at a facility in operations to which this part applies. The person also has enough experience at the facility for which qualification is desired to enable the facility operator to determine that the person's experience is adequate;

(c) The person has completed a training and qualification program established by the facility operator and described in the Operations Manual in accordance with Sec. 154.310(a)(21), that provides the person with the knowledge and training necessary to properly operate the transfer equipment at the facility, perform the duties described in paragraph (d) of this section, follow the procedures required by this part, and fulfill the duties required of a person in charge during an emergency, except that the COTP may approve alternative experience and training requirements for new facilities; and

(d) The facility operator must certify that each person in charge has the knowledge of, and skills necessary to

(1) The hazards of each product to be transferred;
(2) The rules in this part and in Part 156 of this chapter;
(3) The facility operating procedures as described in the operations manual;
(4) Vessel transfer systems, in general;
(5) Vessel transfer control systems, in general;
(6) Each facility transfer control system to be used;
(7) Follow local discharge reporting procedures; and
(8) Carry out the facility's response plan for discharge reporting and containment.

REGULATORY AGENCIES AND REQUIRED PLANS

The following regulatory agencies, regulations and plans are things you should be familiar with. They will crop up from time to time and require your attention, study and knowledge of the requirements.

U. S. Environmental Protection Agency (EPA)

Responsible primarily for Enforcement of Resource Conservation and Recovery Act in Alaska through their Region X offices in Seattle. Monitors **Spill Prevention, Control and Countermeasures Plan** (SPCC) compliance. There are field offices in Anchorage and Juneau.

U. S. Coast Guard

Responsible for **33CFR154** regulated facilities, which include all bulk plants and barge transfers. Monitors compliance with **Oil Pollution Act of 1990**, 33CFR154, **Facility and Mobile Operations Manuals**. Conducts inspections and ensures compliance with **Facility Security Plans** pursuant to the **Maritime Transportation Security Act.**

State of Alaska Department of Environmental Conservation (ADEC)

Responsible for ensuring bulk plant compliance with state statutes, including **18AAC75** and other environmental programs. Reviews, approves, **Spill Contingency Plans**.

State of Alaska Department of Transportation (AKDOT)

Responsible for ensuring compliance with load limits and required truck inspections.

State of Alaska, Office of Occupational Health and Safety

Responsible for ensuring compliance with state and federal **OSHA** requirements and standards.

State or Local Fire Marshal

Responsible for ensuring compliance with applicable fire codes, normally the International Fire Code or Uniform Fire Code.